REMARKS/ARGUMENTS

Claims 1-37 are currently pending in the present patent application.

Once again, the Applicants' attorney notes the Examiner's provisional double-patenting rejection of claims 1-37 and will respond to this rejection in the appropriate manner at such time as the allegedly conflicting claims are allowed.

In a final Office Action mailed on November 23, 2005, the Examiner maintained her rejections of claims 1-37 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,469,361 to Moyne ("Moyne").

Claim 1 recites a hardware subsystem that includes at least one component adapted to carry an electrical signal associated with one from the group of a sensing operation and a control operation, an application database storing application service configuration information that corresponds to a manner of processing information associated with the electrical signal, and a self-configuring application services system comprising a configuration module coupled to the hardware subsystem and coupled to retrieve application service configuration information from the application database.

Referring to paragraphs 64-95 and FIGS. 5-10 of the present application, an object oriented sensing and/or control framework architecture 105 comprises an application services system 900; a signal database 405; an application database 450; a message database 480; at least one sensing/control framework and interface system 600 having a set of sensing and/or control subsystems 120 associated therewith; an Object Database Management System (ODBMS) 800; and a network or network system 110. In an embodiment, the application services system 900 comprises an object manager 910, an object cache 920, and an application services framework module 1130, each of which may reside within the application services system's memory. The object manager 910 directs or oversees the exchange of service objects 870 between the ODBMS 800 and the object cache 920, as requested by the application services framework module 1130, and/or as necessary. . In an embodiment, the application services framework module 1130 comprises an object oriented software framework that includes a configuration and initialization module 1132. The configuration and initialization module 1132 may operate during an initialization mode to retrieve configuration information from the application database 450. Upon retrieval of configuration information from the application database 450, the configuration and

initialization module 1132 may issue one or more requests to the object manager 910 to retrieve service objects 870 and/or references thereto from the OBDMS 800. The service objects 870 and/or references may subsequently reside within the object cache 920. For each service object 870 defined to be active within the application services framework module 1130, the configuration and initialization module 1132 may retrieve a set of corresponding sensor/controller message identifiers from the message database 480, and pass such sensor controller message identifiers to the service object 870 to establish a set of sensor/controller message identifiers to which the service object 870 may respond during system operation.

The Examiner has maintained her rejection using the rationale that she is "interpreting the claims language [in the] broadest possible [sense]" and is therefore viewing the Moyne patent as disclosing the information stored in the database of Moyne as being configuration information. As the term configuration is used herein and as the term is commonly used it should be distinguished from a change in a system executing digital instructions in the form of objects to execute or operate in a new manner. Under a system as disclosed in Moyne, the configuration as we are utilizing that term of the system does not change, but instead different software objects are merely utilized to perform different required functions.

In contrast to the execution of objects on general processing circuitry as disclosed in Moyne, the term configuration as utilized herein relates to changes in fundamental hardware characteristics of a component. For example, Figure 8 of the present application illustrates a set of signal database objects or tables 402, 404, 406, 808 that specifies exemplary configuration information for a signal exchange module 214 implemented as an IP module. In general, the signal database 405 comprises objects or structures that define one or more hardware/software boundaries. Such objects or structures may include parameters or attributes describing or elaborating upon characteristics of each signal exchange module 214. Such parameters may specify how the signal exchange module 214 may be accessed to exchange particular data signals corresponding thereto; one or more mappings between such data signals and event identifiers; and one or more associations between a signal exchange module 214 and a set of signal objects 850. Such parameters may also include a set of network subscription definitions that define manners of communicating information associated

with or corresponding to the signal exchange module 214 across a network 110, as further described below.

The Moyne patent fails to teach or suggest the use of configuration information as recited in that claim. As previously explained, Moyne, at, *e.g.*, FIG. 2 and col. 5, line 37 to col. 6, line 15, teaches a generic cell controller 20 that receives messages containing data. A main program module 21 (which the Examiner regards as a configuration module) of the controller 20 receives this data and matches the data to an entry in a database 22 (which the Examiner regards as an application database). Through relations implied by the database 22, the main program module 21 determines a unique action to be invoked as a result of a received message. In order to invoke an action, the main program module 21 first scans the database 22 to determine necessary routines to call, parameters to pass to the routines and the order in which to call the routines. The main program module 21 then serially calls selected ones of routines 23a-23f, in the specified order and with the specified parameters. The main program module 21 and the database 22 produce a generic sequence of steps to be performed by a selected tool in order to implement a selected manufacturing operation. However, Moyne fails in any manner to teach or suggest that the database stores configuration information or is otherwise used for configuration purposes. Moreover, Moyne fails in any manner to teach or suggest any self-configuring capabilities of the program module 21.

Moyne does not disclose or suggest an application database storing application service configuration information and a self-configuring application services system that retrieves application service configuration information from the application database as recited in claim 1. Moyne does not deal with configuration information as that term is user herein. For these reasons, the combination of elements recited in amended claim 1 is allowable. Independent claim 12 is allowable for reasons similar to those discussed above for claim 1. Dependent claims 2-11 and 13-22 are allowable for at least the same reasons as the associated independent claim 1 or 12 and due to the additional limitations added by each of these claims.

Independent claim 23 recites retrieving application service configuration information that references a software object that includes program instructions directed toward processing an electrical signal, retrieving a software object in accordance with the application service configuration information, retrieving interface configuration

information corresponding to a hardware subsystem, and automatically generating a hardware interface for managing communication between the software object and the hardware subsystem in accordance with the interface configuration information.

Moyne does not disclose or suggest the operations recited in claim 23 that deal with configuration information, as discussed above. Moyne simply deals with utilizing software objects to change the functionality of general purpose digital processing circuitry. Each object includes information to execute on given hardware properly. There is no configuration information for changing the configuration of the hardware components such that subsequently executing software objects will then control this hardware based upon the newly hardware configuration established via the configuration information.

For these reasons, independent claim 23 is allowable and independent claim 29 is allowable for similar reasons. Dependent claims 24-28 and 30-37 are allowable due for at least the same reasons at the associated independent claim 23 or 29 and due to the additional limitations added by each of these claims.

The present patent application is in condition for allowance. Favorable consideration and a Notice of Allowance are respectfully requested. The Examiner is requested to contact the undersigned at the number listed below for a telephone interview if, upon consideration of this amendment, the Examiner determines any pending claims are not in condition for allowance.

Respectfully submitted,

GRAYBEAL JACKSON HALEY LLP

Paul F. Rusyn
Registration No. 42,118
155 – 108th Avenue NE, Suite 350
Bellevue, WA 98004-5973
(425) 455-5575 Phone
(425) 455-5575 Fax